

REMARKS

Claims 1-13 and 15-27 were pending when the Office Action was mailed. Applicants herein amend claims 1, 7, 13, 23, and 24 and do not cancel or present any new claims. Accordingly, claims 1-13 and 15-27 remain pending.

Applicants would like to thank the Examiner for indicating that claims 19-22 are allowable.

The Office Action rejects claims 13 and 15-18 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants herein amend claim 13 to address the Examiner's concerns and respectfully request that the Examiner reconsider and withdraw this rejection.

The Office Action rejects claims 1-13, 15-18, and 23-35 under 35 U.S.C. § 103(a) over a combination of Jones, Turner, and portions of the Background section of applicants' specification. Applicants respectfully traverse these rejections. Nevertheless, applicants herein amend the claims to clarify the subject matter for which protection is sought.

Applicants' specification describes a technique for scheduling tasks executing in a parallel processor architecture having multiple simultaneously executing protection domains. Each protection domain defines the program memory, data memory, and number of streams that are allocated to computations that use the processor. (Specification, ¶ [0007]). When a task is to be swapped out, the task provides an indication of whether the task is blocked. In some cases, this indication may identify a specific thread of the task that is blocked. When the task is to be swapped in, applicants' technique determines whether the task was blocked when it swapped out, and if so, whether an event has occurred that may cause the task to unblock. If the task

was not blocked when it was swapped out or an event has occurred that may cause the task to unblock, applicants' technique selects a protection domain in which to execute the task and swaps the task in. Otherwise, swapping in of the task can be deferred until an event occurs that may cause the task to become unblocked.

Claims 1, 13 and 24 now recite "selecting a protection domain in which to execute the task, swapping the task in, and executing the task in the selected protection domain." Claim 7 now recites "a component that, when it is determined that the swapped out task is to be swapped in, selects a protection domain in which to execute the swapped out task when it is swapped in, swaps the swapped out task in, and executes the task in the selected protection domain." Claim 23 now recites "when it is determined that the task can be swapped in and an indication that the task is blocked was not received, selecting a protection domain to swap the task into, and swapping the task into the selected protection domain."

The Office Action relies on applicants' specification at ¶ [0003] as disclosing a parallel processor architecture having multiple simultaneously executing protection domains. Although applicants do not concede that the portions of the applicants' specification relied upon by the Examiner qualify as prior art, applicants herein amend the claims to further clarify how the protection domains are used in applicants' claimed technology. Rather than swapping a task in and out of the same protection domain, applicants' claimed technology selects a protection domain in which to execute a task when the task is to be swapped in. In this manner, the protection domain in which the task is executed after being swapped in is not determined until the task is to be swapped in. Applicants are unable to find any portion of Jones, Turner, or the Background section of applicants' specification that teach or suggest selecting a protection domain in which to execute a task when the task is to be swapped in. Accordingly, claims 1, 7, 13, 23, and 24 are patentable over the applied references, as are their dependent claims 2-6, 8-12, 15-18, and 25-27. Applicants respectfully request that the Examiner reconsider and withdraw these rejections.

Furthermore, the Office Action objects to claims 26-27 as being dependent upon a rejected base claim 24. For the reasons discussed above, applicants submit that claim 24 is patentable over the applied references and respectfully request that the Examiner reconsider and withdraw these objections.

In view of the above amendments and remarks, applicants believe the pending application is in condition for allowance and respectfully request reconsideration.

Please charge any deficiency in fees or credit any overpayment to our Deposit Account No. 50-0665, under Order No. 324758001US2 from which the undersigned is authorized to draw.

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Respectfully submitted,

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